Claims

1. An optical recording medium comprising:

a substrate; and

a noble metal nitride layer provided on the substrate.

2. The optical recording medium according to claim 1, further comprising:

a first dielectric layer provided on a light entrance face side of the substrate when viewed from the noble metal nitride layer; and

a second dielectric layer provided on a side of the substrate opposite the light entrance face thereof when viewed from the noble metal nitride layer.

3. The optical recording medium according to claim 2, further comprising:

a light absorption layer and a third dielectric layer, which are provided on a side of the substrate opposite the light entrance face thereof when viewed from the second dielectric layer and arranged in this sequence when viewed from the second dielectric layer.

4. The optical recording medium according to claim 3, further comprising:

a reflection layer provided on a side of the substrate opposite the light entrance face thereof when viewed from the third dielectric layer.

5. The optical recording medium according to any one of claims 1 through 4, wherein the noble metal nitride layer contains platinum nitride (PtNx).

6. The optical recording medium according to any one of claims 2 through 5, further comprising:

a light-transmitting layer which is provided opposite to the substrate when viewed from the first dielectric layer and has the light entrance face.

7. The optical recording medium according to claim 6, wherein a thickness of the substrate ranges from 0.6 mm to 2.0 mm; a thickness of the light-transmitting layer ranges

from 10 μm to 200 μm; a thickness of the noble metal nitride layer ranges from 2 nm to 75 nm; a thickness of the second dielectric layer ranges from 5 nm to 100 nm; a thickness of the light absorption layer ranges from 5 nm to 100 nm; and a thickness of the third dielectric layer ranges from 10 nm to 140 nm.

8. A method for manufacturing an optical recording medium comprising:

a first step of forming on a support substrate, in this sequence, a reflection layer, a third dielectric layer, a light absorption layer, a second dielectric layer, a noble metal nitride layer, and a first dielectric layer; and

a second step of forming a light-transmitting layer on the first dielectric layer.

9. The method for manufacturing an optical recording medium according to claim 8, wherein processing pertaining to the first step is performed by means of a vapor phase deposition method, and processing pertaining to the second step is performed by means of a spin coating method.

10. A data recording method for recording data on the optical recording medium defined in any one of claims 1 through 7, to thus record data by irradiating a laser beam from the light entrance face, wherein,

when a wavelength of the laser beam is taken as λ and a numerical aperture of an objective lens used for focusing the laser beam is taken as NA, a train of record marks, including record marks whose lengths are $\lambda/4NA$ or less, is recorded by setting λ/NA to 640 nm or less.

11. A data reproduction method for reproducing data from the optical recording medium defined in any one of claims 1 through 7, to thus record data by irradiating a laser beam from the light entrance face, wherein,

when a wavelength of the laser beam is taken as λ and a numerical aperture of an objective lens used for focusing the laser beam is taken as NA, data are reproduced from a train of record marks, including record marks whose lengths are $\lambda/4NA$ or less, by setting λ/NA to 640 nm or less.